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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/039,657 | 12/31/2001 | Andrew S. Grover | P13477 | 3983 |

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INTEL CORPORATION
P.O. BOX 5326
SANTA CLARA, CA 95056-5326

EXAMINER

NELSON, ALECIA DIANE

| ART UNIT | PAPER NUMBER |
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2675

4

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.

10/039,657

Applicant(s)

GROVER, ANDREW S.

Examiner

Alecia D. Nelson

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. ***Claims 9-11 and 15-18*** are rejected under 35 U.S.C. 102(b) as being anticipated by Kuga (U.S. Patent No. 5,686,940).

With reference to **claims 9 and 15**, Kuga teaches a computer system comprising a machine-readable medium including instruction that when executed by a computer system causes the computer system to perform a determination of a distance between a user (U) and a sensor (2), wherein the sensor is located near the display device (1), and configuring a display device based on the distance (see column 3, lines 15-28).

With reference to **claims 10, 11, and 18**, Kuga teaches that the display device comprises modifying a font size of text or an image to be displayed on the display device (see abstract).

With reference to **claims 16 and 17**, Kuga teaches that the sensor may be a position-sensing device, which inherently includes a camera, which acts as an active or passive type measurement system (see column 3, lines 52-57).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. ***Claims 1-7*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuga.

With reference to **claim 1**, Kuga teaches a computer system comprising a processor (5), a display screen (1) and a sensor (2) to measure an approximate distance to a user (U) (see column 2, lines 30-42). The computer system also includes a memory (4) for storing image data, and a comparator (3), which converts the signal of the distance sensor (2) into signals for adjusting the display image or text (see column 33-40). It is further taught that upon starting the system a standard distance from the display is set and used by the comparator until a new distance is determined (see column 2, line 60-column 3, line 4).

Even though Kuga teaches that the comparator carries out the functionality of using the measurement code and configuration code as claimed, under control of the microcomputer in order to determine the distance between the user and the display in order to adjust the image or text accordingly, there is no disclosure that the comparator is a storage device. However, Kuga does teach the usage of a memory device for storing image data being a non-volatile memory such as a FRAM or EEPROM (see column 2, lines 36-42).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to allow for the comparator unit to be a storage device similar to that as explained with reference to the memory device used for storing image data. By allowing the storage device to be a non-volatile memory device and thereby allowing the device to store and retain settings after power down of the system. Thereby allowing the user to have an automatic adjustment of the size of the image or text being displayed on the flat panel device, which cause a reduction time need for making the manual adjustments through knobs or drop down menus as well as a reduction in the amount of eyestrain on the user.

With reference to **claim 2**, Kuga fails to teach that the display screen is that of a mobile system, however does teach the display device is a flat panel display device which is well known to those skilled in the art to be included in mobile systems.

With reference to **claim 3**, Kuga teaches that the sensor is located proximal to the display screen such that the distance to the user is an approximate distance between the user and the display screen (see column 3, lines 52-57).

With reference to **claims 4 and 5**, Kuga teaches that the sensor may be a position-sensing device, which inherently includes a camera, which acts as an active or passive type measurement system (see column 3, lines 52-57).

With reference to **claims 6 and 7**, Even though, Kuga teaches increasing the size of the image or text with decreasing the distance and decreasing the size of the image or text with increasing the distance between the display screen and the user (see columns 3, 16-43), there is no disclosure that the size in increases with an increase in distance or that the size decreases with a decrease in distance. However, it would be obvious to one having ordinary skill in the art being that this system is run by software that the software could easily be modified to allow for the size increase with an increase in distance as opposed to a decrease in distance and size decrease with a decrease in distance as opposed to a increase in distance.

5. **Claims 8, 12-14, and 19-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuga as applied to **claims 1, 9, and 15** above, and further in view of Fatch et al. (U.S. Patent No. 6,244,711).

Kuga teaches all that is required as explained above with reference to **claims 1, 9, and 15**, however fails to specifically teach that the system modifies brightness or contrast level of the image.

Fatch et al. teaches that the system can utilize the position and orientation information to optimize the computer system setup (e.g., display font size, brightness, ect), as well as provide additional feedback through the computer system to the user (see column 6, lines 56-60), which could include audio data as well being that it is well known in the art for computer systems to include audio I/O devices.

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to include display brightness, contrast, and audio control in order to provide an improved computer system that allows for simple and quick adjustments of the display characteristics as well as audio characteristics based on the users placement with relation to the display screen thereby providing the user with dynamic visual and audio feedback enabling the user to obtain a proper, ergonomic orientation with the computer work environment.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ruoff, Jr. (U.S. Patent No. 4,513,317), **Tognazzini et al.** (U.S. Patent No. 5,731,805), and **Nasserbakht et al.** (U.S. Patent No. 6,072,443) teach a eye tracker, which monitors the position of the viewer's line of sight to thereby control display attributes.

Bisey (U.S. Patent No. 5,367,614) and **Light** (U.S. Patent Publication No. 2003/0080937) teach a three-dimensional display system which includes a transmitter worn by the user and a receiver mounted on or near the computer display monitor used to calculated the distance between the transmitter and the receivers for controlling the three-dimensional environment.

Fateh et al. (U.S. Patent No. 6,345,893) teaches a system for aiding a computer user in finding an ergonomic position within a work environment and allowing for adjustments including font size.

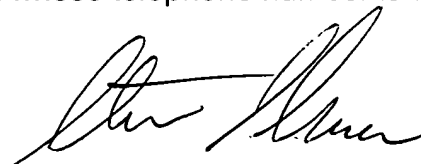
Stern et al. (U.S. Patent Application Publication No. 2002/0047828) teaches a system and method for determining an optimal viewing distance and monitoring the distance of a user from the computer monitor during use of the computer.

Kushelvesky (U.S. Patent Application No. 5,668,743) teaches a system and method for automatically conveying to a computer the distance between the subject and the test object on the computer display unit.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alecia D. Nelson whose telephone number is (703) 305-0143. The examiner can normally be reached on Monday-Friday 8:00 a.m.-5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras can be reached on (703) 305-9720. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-2600.



STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

adn/AND
December 3, 2003